



**Getting the Job Done:  
Working Within the Regulatory Environment  
at Lake Tahoe  
to Manage Weeds**

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**1998**  
**Really tall perennial pepperweed**  
**thriving at Tahoe**







**1998**



**2000**





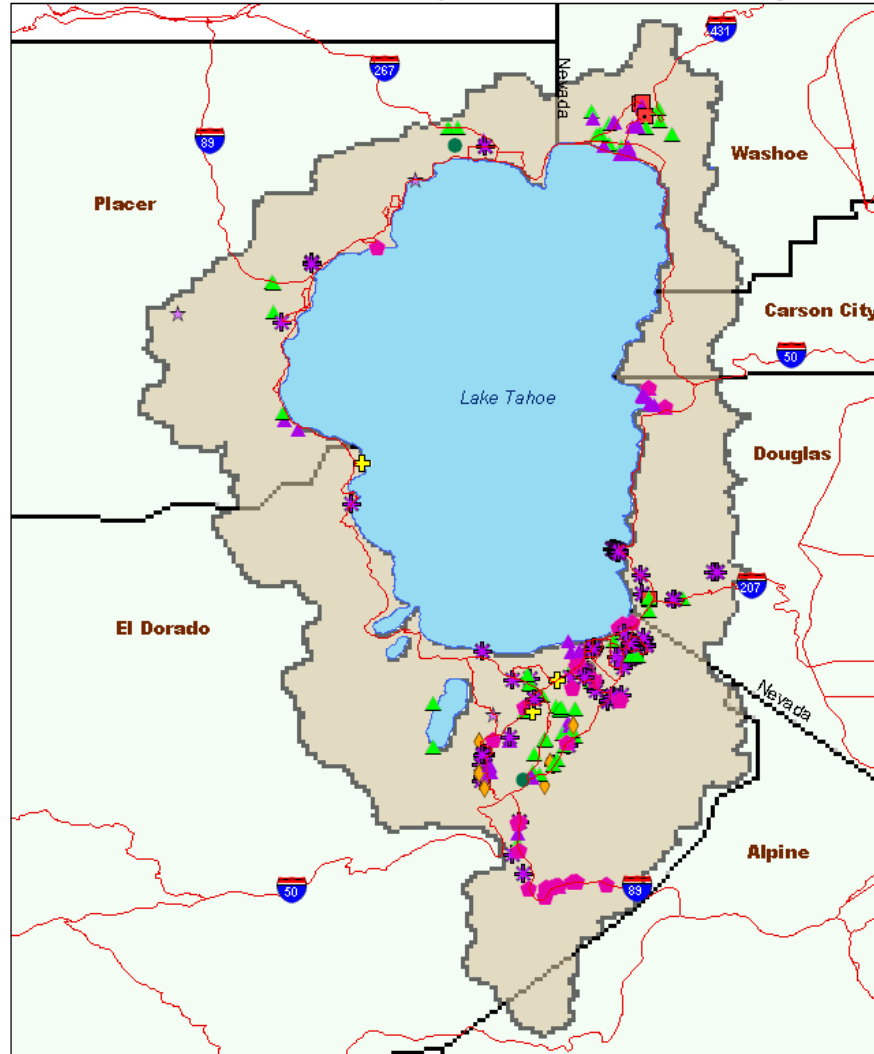
**Happy weed warriors!**

# Priority weed species













- Diffuse knapweed
- Russian knapweed
- Spotted knapweed
- Yellow starthistle
- Hoary cress
- Perennial pepperweed
- Dalmatian toadflax
- Yellow toadflax
- Bull thistle
- Canada thistle
- Musk thistle
- Scotch thistle
- Scotch broom
- Klamathweed
- Eurasian watermilfoil
- Oxeye daisy

<b>Weed Species</b>	<b>Frequency</b>
<b>Perennial pepperweed</b>	<b>165</b>
<b>Bull thistle</b>	<b>144</b>
<b>Dalmatian toadflax</b>	<b>58</b>
<b>Spotted knapweed</b>	<b>42</b>
<b>Diffuse knapweed</b>	<b>28</b>
<b>Klamathweed</b>	<b>17</b>
<b>Oxeye daisy</b>	<b>10</b>
<b>Scotch broom</b>	<b>8</b>
<b>Yellow toadflax</b>	<b>3</b>
<b>Yellow starthistle</b>	<b>2</b>
<b>Eurasian watermilfoil</b>	<b>2</b>
<b>Musk thistle</b>	<b>1</b>
<b>Canada thistle</b>	<b>1</b>
<b>Russian knapweed</b>	<b>1</b>

# Lake Tahoe Basin Invasive Weed Survey & Eradication Project



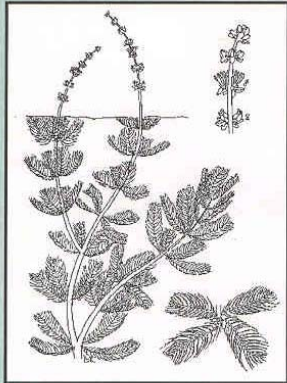
## Legend

- |   |  |  |
|---|--|--|
|  Highways          |  Centaurea diffusa    |  Centaurea squarrosa  |
|  Basin Boundary    |  Centaurea maculosa   |  Cirsium arvense      |
|  Acroptilon repens |  Cytisus Scoparius    |  Lepidium latifolium  |
|   |  Centaurea Solstitial |  Linaria genistifolia |
|   |  |  Tribulus terrestris  |



**ATTENTION BOATERS!  
YOU CAN HELP KEEP TAHOE BLUE!**

Tahoe's blue could become **murky green** if this weed is not stopped



**Eurasian Watermilfoil**



**EWMF is a risk to boaters:**

- Its dense growth restricts a boat's movement.
- Its long stems can wrap around propellers.
- It can be sucked into water intakes.

**EWMF threatens Tahoe's pristine waters:**

- It displaces native water plants
- Its rapid growth uses up oxygen needed by fish
- Its decay releases phosphorus, supporting algae growth

For more information, contact Sue  
Cooperative Extension and Tahoe  
775-784

**Join the Weed Warriors  
to Keep Tahoe clean and clear!**

Find an invasive weed? Contact Lake Tahoe Basin  
Weed Coordinating Group

California:  
El Dorado County  
(530) 621-5520  
Nevada County  
(530) 273-2648  
Placer County  
(530) 889-7372

Nevada:  
Douglas County  
(775) 782-9835  
Washoe County  
(775) 784-4848



**TAHOE'S  
TRIPLE THREAT:**

**INVASIVE  
WEEDS**

**Don't let them choke the blue out of Tahoe!**

**Watch For in the Tahoe Basin**

Scotch Thistle



Canada Thistle



Bull Thistle



Russian Knapweed



Spotted Knapweed



Diffuse Knapweed



Yellow Starthistle







**2002 Tour**

# Priorities for treatment

## Immediate control by mechanical methods

**Musk thistle**

**Scotch thistle**

**Yellow starthistle**

**Diffuse knapweed**

## Practice containment to prevent expansion of existing populations:

**Bull thistle**

**Klamathweed**

**Oxeye daisy**





# Priorities for control

## Immediate control by chemical methods

- Canada thistle
- Perennial pepperweed
- Russian knapweed
- Spotted knapweed
- Dalmatian toadflax
- Yellow toadflax



# Lahontan Regional Water Quality Control Board:

## Water quality protection at Tahoe

- **The Basin Plan for the Lahontan Region states that “Pesticide concentrations, individually or collectively, shall not exceed the lowest detectable levels, using the most recent detection procedures available.”**



# What to do?

- 1. Give up and let the weeds grow on the California side of the Basin**
- 2. Apply less effective control measures**
- 3. Work with Lahontan to specify conditions under which terrestrial applications of herbicides would be acceptable**

# The approach:

1. **Specify herbicides to be used on target vegetation**
  - **Glyphosate**
  - **Chlorsulfuron**
  - **Clopyralid**



# The approach:

2. Establish categories of infestation
  - Category 1: Infestations that are less than  $\frac{1}{4}$  acre in size and less than 25% total weed cover
  - Action: no consultation needed for terrestrial applications
  - Benefit: efficient use of time; rapid weed management

# The approach:

2. Establish categories of infestation
  - Category 2: Infestations that are up to 1 acre in size and any cover class
  - Action: 48-hour response from LRWQCB
  - Benefit: Allows rapid treatment to prevent seed set



# The approach:

2. **Establish categories of infestation**
  - **Category 3: Infestations that are greater than 1 acre, or within 25 feet of a water surface**
  - **Action: Extensive notification and consultation with LRWQCB**
  - **Benefit: Allows site visit and discussion of risk of herbicide use prior to application**

# Provisos:

- **Follow BMPs for application method**
- **Strictly terrestrial applications**
- **Application made a minimum of 25 feet from the water surface edge**
- **Spot spray application only**
- **Application made a minimum of 50 feet from the nearest known and surveyed Tahoe yellow cress plants.**
- **Consultation prior to beach applications**

# How's it working?

- **Weed management is ongoing basin-wide**
- **Most infestations do not require a consultation**
- **Consultation on 1.5 acre infestation of Russian knapweed completed**



